

PLASMODIUM SP. CHITINASE

ABSTRACT OF THE DISCLOSURE

The present invention is directed to isolated nucleic acid molecules encoding *Plasmodium* sp. chitinases. Expression vectors and host cells comprising the nucleic acid molecules are also provided, as well as methods for increasing or decreasing the expression of the chitinase in host cells. The invention further provides methods of screening a substance for the ability of the substance to modify chitinase function, and a method for isolating other chitinase molecules. DNA oligomers capable of hybridizing to the nucleic acid molecule encoding the chitinase are provided, which can be used to detect chitinase in a sample. An isolated *Plasmodium* sp. chitinase is also provided. Antibodies specific for the chitinase, and fragments thereof, are provided, as are compositions comprising the chitinase and a compatible carrier. The subject invention further provides methods of preventing infection of mosquitoes by *Plasmodium* sp. and methods of preventing transmission of malaria.